

FORM-V

ANNUAL ENVIRONMENTAL STATEMENT (Rule 14 of The Environment Protection 1986)

Environmental Statement for the financial year ending with 31st March 2020

PART-A

- i. Name and address of the owner
occupier of the industry operation or process. :- Mr. B.N.S.PrakashRao
Sr. Vice President
JSW Steel Limited – CPP – II,
Salem works,
M. Kalipatti Village
Salem Dist. – 636 453.
- ii. Industry category Primary :- Red - Large
- iii. Production category :- Captive Power- 3 x 30 MW
- iv. Year of establishment :- 2006 & 2019
- v. Date of the last environmental
statement submitted. :- 08th July 2019

PART - B

Water and Raw Material Consumption:

i. Water consumption in m³ /d (@ 365 days / year)

Process:	44 m ³ /day
Cooling:	3858 m ³ /day
Domestic:	57 m ³ /day

Name of Products	Specific Water consumption per unit of products	
	During the financial year (2018 – 19)	During the financial year (2019 – 20)
Captive power (m ³ /MWH)	2.60	2.75

ii. Raw material consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year (2018 – 19)	During the current financial year (2019 –20)
Coal (MT)	Power Generation	119663	130818
LDO (KL)		18.10	32.40
Bed Material (MT)		564	614

PART-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

a. Water Environment:

Trade effluent generation from the process of 2 x 30 MW is completely sent to Steel plant waste water treatment plant (combined waste water treatment plant) and reused in the steel process, water sprinkling. A dedicated ZLD plant is installed in the additional 1 x 30 MW CPP (Air Cooled Condenser) to treat and reuse the auxiliary cooling tower blow down water. There is no effluent discharge to outside the premises and hence no effluent samples were collected by TNPCB during the period.

Sewage effluent generated is treated through septic tank and followed by dispersion trench.

b. Air Environment

i) Details of the Stack Emission from the Plant

The details of the average Stack Emission for the year 2019 – 20 are given under.

Pollutants prescribed	Prescribed the Limits	Quantity of pollution Discharged (kg/day)	Con. of pollution in Discharged (mg/Nm ³)	% of variation from Prescribed Standards with
PM	50 mg/ Nm ³	103	27.5	Zero % variation
SO ₂	600 mg/ Nm ³	1269	336.9	
NOx	---	1232	328.7	

PART-D HAZARDOUS WASTES

As specified under Hazardous and other Wastes (Management & Transboundary Movement) rules 2016

a. From Process

Hazardous Wastes	Authorization Qty as per HWMR (MT/Annum)	Total Quantity (MT)	
		During the current financial year (2019 – 2020)	During the current financial year (2019 – 2020)
5.1 - Used / Spent oil	2.5	1.84	2.38
5.2 - Waste / Residues containing oil (Used Grease)	1.5	-	-
5.2 - Waste / Residues containing oil (Oil Soaked Waste)	2.5	0.763	0.42
3.3 - Sludge and filters contaminated with oil (Furnace oil cleaning sludge once in 5 Years)	0.3	-	-
33.3 - Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	2.0	1.4	0.72

b. From Air Pollution Control Facilities

Fly ash from Air pollution control (ESP) facility is collected and stored in silo. The collected fly ash is disposed to brick manufacturing unit.

The Batteries (Management & Handling) Rules, 2001 Generation and disposal

Battery Waste	Total Quantity (MT)	
	During the previous financial year (2018 – 2019)	During the current financial year (2019 – 2020)
	Disposal	Disposal
Lead and lead compounds (Used Battery)	14.29	4.9

PART - E

SOLID WASTES: (Generation)

Solid Wastes	Total Quantity (MT) Generation	
	During the previous financial year (2018 – 19)	During the current financial year (2019 –20)
a. From process:		
Used Bed Material	2879	2541
Fly Ash	-	-
b. From Pollution Control Facility:		
Fly Ash from ESP	12693	13067
c. 1.Quantity recycled or re-utilized with in the unit		
Used Bed Material	2255	1880
Fly Ash	140	0
(2) Sold		
Fly Ash	-	-
(3) Disposed		
Fly Ash	12553	13067

PART - F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Sl. No.	Description of the Waste	Characteristics	Disposal Quantity (TPA)	Method of Disposal
Non Hazardous Waste				
1	Used Bed Material	Non Hazardous	1880.0	Reused in AFBC boiler
2	Fly Ash	Non Hazardous	13067	100 % disposed to Fly ash bricks manufacturing units around to the plant
Hazardous Waste				
1	Waste / Residues containing oil (Oil soaked cotton waste)	Hazardous	0.42	Sent to TNPCB authorized agency
2	Waste / Residues containing oil (Used Grease)	Hazardous	-	-
3	Used / Spent oil (Litres / Year)	Hazardous	2.38	Sent to TNPCB authorized agency
4	Discarded containers / Barrels / Liners contaminated with hazardous waste / Chemicals	Hazardous	0.72	Sent to TNPCB authorized agency
5	Sludge and filters contaminated with oil (Furnace oil cleaning sludge once in 5 Years)	Hazardous	-	-

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

Most of the pollutants generated are controlled at source by Air pollution control facilities like Bag filters, Electro Static Precipitator and Water Sprinklers.

Operation and Maintenance of pollution control equipments increases the manufacturing cost of power generation. Solid waste generated like fly ash is disposed 100% to Fly ash brick manufacturers. Used bed material (Refractory materials which is used for boiler bed fluidization) is recycled /reused in the boiler process due to this there will be a reduction in cost of power production.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution.

- In Unit 3 (1 x 30 MW) Air Cooled Condenser (ACC) is installed in place of Water Cooled condenser (WCC) whereby fresh water conservation will be 2300 KLD.
- Coal based boiler ESP is upgraded to meet the emission standard of 50 mg/Nm³.
- Lime stone dosing system is provided in AFBC boiler to control SO₂ emission to meet the standard.
- Improved waste heat recovery from Coke oven battery number#3 to Reduction of GHG emission 3234 MT
- Improved waste heat recovery from Coke oven battery#2 resulted in energy savings to reduction of GHG emission 7385 MT
- Increasing steam generation from WHRB# 3 which will be resulted in reduction of coal consumption in coal based boiler
- Maximize Power generation through waste gas utilization is 70 % and coal based is 30%
- Green belt developed about 1000 sapling.

PART - I

MISCELLANEOUS

Any other particulars in respect of environmental protection and abatement of pollution.

Tree Details

JSW Steel Ltd- CPP2 has planted 2,18,855 trees and saplings up to March 2020 under the green belt development to control the noise level and dust emission out of the boundary. JSW is committed to improving the quality of life of the community. Our focus on all round improvement of the Community through our Corporate Social Responsibility(CSR) and CER. The company has a robust CSR policy with emphasis on areas like, Livelihood Initiatives, Education, Health, Infrastructure and Environment. Our strong association with Stakeholders i.e. local leaders and partnership with NGO's helps us to understand the community needs and widen our reach. The CSR & CER details are attached as annexure -I & Annexure-II.

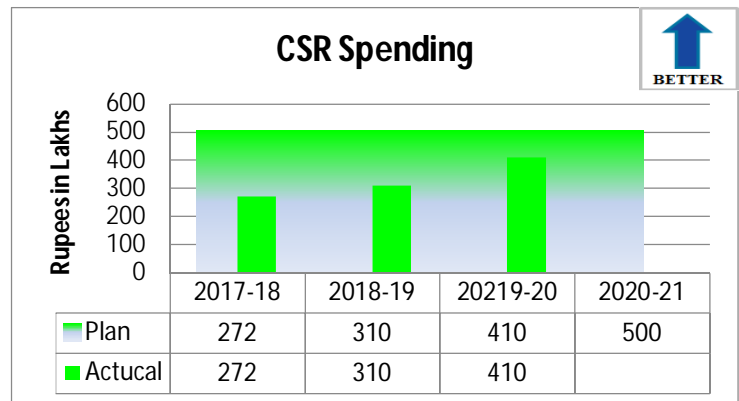
Annexure-I

CSR Report

Background

JSW Steel Ltd., Salem Works is committed to improve the quality of life of surrounding community through Corporate Social Responsibility (CSR) programmes. We have a well laid down community development program under CSR. Our focus is on

- Health
- Education
- Environment
- Women Empowerment
- Sports and
- Rural Infrastructure Development.



People in Pottaneri, M.Kalipatti, Kuttapatti, Viruthasampatti and Gonur Panchayats and Mecheri Town are covered under CSR projects. Our CSR spent for the financial year 2020 is Rs. 4.10 crores and financial year 2021 planned is Rs. 5.00 Crores till June 2020 about 0.69 Crs spent.

HEALTH

JSW Salem conducts various health camps and hand-washing awareness in villages. Under malnutrition eradication drive, JSW Salem conducts pediatric health camps in 20 government anagawadi centres on a regular basis covering more than 1000 children from the surrounding villages.

The Covid-19 pandemic has brought huge changes for people health. To reduce the risk of outbreaking emergence cases the JSW Steel, Salem CSR donated Rs. 8 Lakhs, eight-seater battery operated car with stretcher to the Government Kumaramangalam Medical College and Hospital, Salem on 30th May 2020. The battery car used for patients' mobility, an emergency from one ward to other ward or any other place.

Covid-19:

1. Provided food grains for the needy - Rice, Dhal, Oil, Cloth Masks – 4000 Households
2. Awareness Campaigns in surrounding villages- 7479 households/32941 Individuals
3. Basic screening in surrounding villages –



3500 Households/15000+ individuals

4. Provided N95 Masks (500) and PPE kits (200) to the GHs.
5. Sanitized with disinfectant spray in surrounding villages.



ENVIRONMENT

Greening Initiative: JSW supported ISHA nursery for raising 3,00,000 saplings. 5000 trees were planted in the lands of surrounding villagers on 5th June to mark the "World Environment Day".

Agri-business Promotion through Farmer Producer Companies:



Building on the relationship JSW

Salem had with the farmers in the surrounding villages, a new project is being implemented in the villages. The farmers in the M.Kalipatti and Kuttapatti panchayats are organized into farmer interest groups and a Farmer Producer Company has been registered. The company will help the farmers to market their produce and get a fair share of profits. So far, 2000 farmers are organized. Soil testing, mushroom & honey bee cultivation, bee



keeping, organic farming practices etc., are demonstrated in the villages. One more Farmer Producer Company is being promoted in Gonur panchayat with the watershed farmers.

WOMEN EMPOWERMENT

Taloring: We have trained women groups in tailoring and leather gloves making, taken them to garment industries to give them exposure about the market. We have placed orders on self-help women's groups for stitching safety reflective jackets for use in the plant.



Gonur Watershed Programme



Various Soil and water conservation measures like field bunds, farm ponds, loose rock check dams etc.,

were implemented in seven villages of Gonur Watershed. We have covered 218 acres of land with 125 new farmers in these villages. Officials from NABARD visited the watershed to give technical recommendations as well as to monitor the ongoing

Beneficiaries	FY 20
Farming families	125

programmes.

Community development

Haqdarshak: Haqdarshak project being implemented in 16 villages. We have facilitated around 300 citizens to avail Govt. Schemes through Haqdarshak under various 35 Government Schemes. And conducted 3 camps in different panchayat locations.

Beneficiaries	FY 20
citizens	300



CER Report**1. Mettur ITI Support**

Being an enduring sponsor for Govt. ITI, Mettur Dam, we have been providing needed support every year. In order to make the Mettur ITI students to excel in Sports activities and to participate in Zonal level sports meet, we have contributed sportswear to hundreds of students to Mettur ITI worth of Rs. 54, 000 on 27-02-2020

**2. Education Support – Smart Board to School**

To ensure interactive learning experience of students, Technology support is necessary. We have offered a smart board with advanced technology worth of Rs. 1, 75, 000 to the Railway School, Salem which can provide them with an enriched learning experience by projecting visual elements during Jan 2020

**3. Health Support – COVID 19**

JSW envisioned the prominent need of this Pandemic Situation. To alleviate COVID 19 fatalities, life supporting ventilators are needed. Based on the request from District Administration, we have donated 5 well equipped ventilators total worth of 25 lakhs to the Salem. Government Hospital,



4. Covid-19 Relief Support – Ration to 400 families

JSW donated relief materials worth of Rs.1100000 to Pottaneri and M Kalipatty panchayat on 18th of May 2020 through which 4000 families benefitted. Each bag consists of 5 Kg rice, Half KG Dhal and Half liter oil.



5. Water supply through Tankers during summer

Due to insufficient water supply by Panchayat during Summer, JSW started supplying water through tankers only during summer time. Rs . 6,60,000 spent during Mar to June 20 for this .



6. Water supply through Tap

Based on the request from Local People, JSW has additionally put two taps along the south side of the compound wall, through which water will be supplied for four hours. The cost for laying of pipe and tap was 4,00,000.



7. Covid Support

As part of COVID support to local panchayats namely (Pottaneri, M Kalipatty, Viruthasampatty and Kuttapatty) supplied materials like masks, soaps, Bleaching power, Lime power and Lizol worth of Rs.1.5 Lakhs.

8. Push Cart and Dust Bins

To effectively manage the waste disposal, based on the request from Block Development Officer, Mecheri, JSW had donated push carts and dustbins worth of 7,88,000 to all the 17 panchayats.



9. Awareness Creation through Banners:

To create awareness among people in Salem District, JSW printed various awareness creation banners on COVID 19 and displayed in various prominent places of city and villages. Rs.55 ,000 spent for this activity . Total spent for the period Jan20 – June 20 is about 59 Lakhs and so far spent is 3.68 Crs.

